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Grassmannian sigma models and constant curvature solutions

We discuss solutions of Grassmannian models G(m, n) and give some general results. We thus concentrate on such solutions with constant curvature. For holomorphic solutions, we give some conjectures for the admissible constant curvatures which are verified for the cases, G(2, 4) and G(2, 5). The study is extended to the case of non holomorphic solutions with constant curvatures and we show that in the case of the Veronese sequence, such curvatures are always smaller than the ones of the holomorphic solutions. This work has been done in collaboration with L. Delisle (UdM) and W. Zakrzewski (Durham, UK).